
Academic Year 2018

Hokkaido University

Graduate School
of Veterinary
Medicine

Graduate School
of Infectious
Diseases

Doctoral Program Application Guidelines 2018 (admission in October)

- Regular Selection

* Guidelines for applicants wishing to be enrolled in either Graduate School of Veterinary Medicine or Graduate School of Infectious Diseases

*Application guidelines for “Special Selection Quota for those currently in employment” is available only in Japanese.

Reorganizing the current Graduate School of Veterinary Medicine into the new Graduate School of Veterinary Medicine and the Graduate School of Infectious Diseases in April 2017

The health of humans, the health of animals and the health of the environment together form a single “health circle”. Protecting this circle is key to ensuring a sustainable community.

A variety of emergent and re-emergent infectious diseases, which are major factors challenging the health circle, now threaten the world. Against this backdrop, it is becoming more and more important to train experts who can conduct research from various perspectives and take appropriate measures in collaboration with the international community. In clinical, fundamental and environmental veterinary medicine fields, it is required at home and abroad to further advance, diversify and technicalize graduate education/research and train individuals who can demonstrate international leadership in order to deal with social change, the development of science and technology, and environmental destruction and deepen the health circle of humans, animals and the environment.

To tackle these challenges, we reorganized the former Graduate School of Veterinary Medicine into the new Graduate School of Veterinary Medicine and the Graduate School of Infectious Diseases in academic 2017 to provide even more advanced and deepened education. With an interdisciplinary and international education/research environment using a collaborative research network that connects more than 30 countries around the world, the Graduate School of Infectious Diseases provides graduate education aimed at producing experts who can combat infectious diseases. Education and research supervision are provided by researchers of the Research Center for Zoonosis Control who are specialized in veterinary medicine, medicine, pharmaceutical sciences, science and information science, as well as teaching staff of infectious disease-related laboratories at the Faculty of Veterinary Medicine and those of the Faculty of Medicine.

The new Graduate School of Veterinary Medicine focuses on veterinary science/care education based on the three pillars of animal life science, clinical veterinary medicine and environmental/applied veterinary science, and advances and sharpens education and research that are worthy enough to both lead the world and develop experts in these fields. We establish the Clinical Medicine-Emphasizing Program to train leaders in specialized clinical fields. Education and research supervision are provided by teaching staff of the Faculty of Veterinary Medicine who are not connected to infectious disease-related laboratories.

These two new graduate schools have started their own unique curricula based on the excellent teaching and student-support methods developed through the former graduate programs including ‘Leading Graduate Schools: Fostering Global Leaders in Veterinary Science for Contributing to One Health (academic 2011 to 2017)’* Since veterinary science/care is inseparably linked to infectious diseases, both graduate schools share basic educational resources to effectively utilize their mutual strengths and characteristics.

The Graduate School of Veterinary Medicine and the Graduate School of Infectious Diseases welcome students who have the motivation and enthusiasm to learn and overcome global issues related to the health of humans, animals and the environment.

*Please refer to: <https://www.vetmed.hokudai.ac.jp/en/>.

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※Applicants for the Graduate School of Infectious Diseases should read “ 2. About Graduate School of Infectious Diseases (page 3)” and “3. Applicant Qualifications (page 5)” and thereafter.

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Doctoral Program Application Guidelines 2018

- Graduate School of Veterinary Medicine
- Graduate School of Infectious Diseases

Regarding Graduate School of Veterinary Medicine

Following are guidelines for the Graduate School of Veterinary Medicine. Applicants should carefully read this clause, and the clauses on page 5 and thereafter.

1. About Graduate School of Veterinary Medicine

(1) Educational Aims of the Graduate School of Veterinary Medicine

The educational principles of the Graduate School of Veterinary Medicine aim to develop scientific researchers/veterinary practitioners with a wide range of accomplishments, high ethical standards and an abundance of sensitivity; experts who will become responsible for the health and well-being of animals, humans and the environment – with outstanding creativity and international awareness – by acquiring specialized and advanced knowledge and skills, through the study and research of veterinary medicine and veterinary sciences. Based on these principles, the educational aims of the Graduate School of Veterinary Medicine are to nurture human resources and provided domestic and overseas societies with 1) personnel to develop the world's veterinary medicine, veterinary healthcare and life sciences in various occupational fields such as veterinary medicine, life science, environmental conservation and the like, 2) human resources to lead conservation of the environment/ecosystem and regional veterinary healthcare in a variety of fields, such as the agriculture and livestock industries as well as medicine/food-related industries, and 3) pioneers to lead research and education in next generation veterinary medicine and veterinary sciences.

(2) Admission Policy

Linking animal, human, and environmental health is an important common global issue in the 21st century. At the Graduate School of Veterinary Medicine, according to the above educational principles and educational aims, the learning objectives are successful participation in various fields related to veterinary healthcare, veterinary medicine and life science at home and abroad, and the acquisition of – and ability to display – leadership skills. In order to fulfil these objectives, the Graduate School of Veterinary Medicine seeks students and members of society from both home and abroad, with the following necessary qualities.

- 1) Sufficient basic academic skills to study in the specialist field of veterinary medicine, and the high moral outlook and sense of ethics required of a scientist/veterinary professional.
- 2) Strong motive/interest and high level of awareness to carry out scientific research, and the willingness and passion to clarify issues and solve problems.
- 3) A wide perspective and grasp of veterinary medicine-related matters, as well as the consciousness and outlook to serve both domestic and overseas societies through the health and well-being of animals, humans and the environment.
- 4) The ability to communicate, as well as the enthusiasm and willingness to cooperate, all of which are vital in order to proceed with research and study.

(3) Number of Students Accepted

| Division, Graduate School | Student capacity |
|--|----------------------------|
| Division of Veterinary Medicine, Graduate School of Veterinary Medicine | A small number of students |

(4) Selection Procedure

【Regular selection】

This selection targets applicants who fulfill the qualification in “3. Applicant Qualifications”. Admission of each applicant is determined comprehensively on the basis of results of their academic examination (written examination and oral examination) and their transcripts.

Academic examination

(1) Written examination

- (a) Major subject: Subject in the field of education/research of your choice
- (b) Foreign language: English

* You are not allowed to bring any dictionaries when taking the foreign language examination.

(2) Oral examination

You will be asked questions mainly about your previous research and knowledge in your chosen field of education/research.

(5) Fields of Education/Research, Supervisors, and Written Examination Subjects

| Division, Graduate School | Field of Education/Research | Supervisor | 【Regular Selection】 Written Examination Subject | |
|--|----------------------------------|---|--|---------------------|
| | | | Major Subject | Foreign Language |
| Division of Veterinary Medicine, Graduate School of Veterinary Medicine | Anatomy | Yasuhiro KON | Anatomy | English |
| | Physiology | To Be Determined | Physiology | |
| | Biochemistry | Kazuhiro KIMURA | Biochemistry | |
| | Pharmacology | Ken-ichi OTSUGURO | Pharmacology | |
| | Veterinary Internal Medicine | Mitsuyoshi TAKIGUCHI ¹⁾ | Veterinary Internal Medicine | |
| | Veterinary Surgery | Masahiro OKUMURA | Veterinary Surgery | |
| | Comparative Pathology | Takashi KIMURA | Comparative Pathology | |
| | Theriogenology | Seiji KATAGIRI ²⁾ | Theriogenology | |
| | Molecular Medicine | Mutsumi INABA | Molecular Pathology | |
| | Advanced Veterinary Medicine | Mitsuyoshi TAKIGUCHI ¹⁾ | Clinical Pathology | |
| | Radiation Biology | Osamu INANAMI | Radiation Biology | |
| | Toxicology | Mayumi ISHIZUKA | Toxicology | |
| | Wildlife Biology and Medicine | Toshio TSUBOTA | Wildlife Biology and Medicine | |
| Laboratory Animal Science and Medicine | Takashi AGUI | Laboratory Animal Science and Medicine | | |

*1 In charge of two fields

*2 Affiliated with the Department of Environmental Veterinary Sciences

Regarding Graduate School of Infectious Diseases

Following are guidelines for the Graduate School of Infectious Diseases. Applicants should carefully read this clause, and the clauses on page 5 and after.

2. About Graduate School of Infectious Diseases

(1) Educational Aims of the Graduate School of Infectious Diseases

As was seen in the Ebola hemorrhagic fever outbreak cases, the threat of the emerging and re-emerging infectious diseases to the human society and economy has been increasing. Accordingly, the demand of the training for the specialists who deal with the infectious disease research works and its control is raising. To fulfil the social demand, Graduate School of Infectious Diseases pursues the mission to develop the human resources who has the wide knowledge of infectious diseases, flexible imagination and comprehensive decision making ability to contribute the development of the infectious disease research and education field as well as infectious disease control around the world with practical ability and leadership.

(2) Admission Policy

Applicants for admission are expected to possess the following qualities/abilities:

- A desire to contribute to scientific research associated with infectious disease and its control
- Deep understanding of the concept of One Health (human, animal and environmental health)
- Practical ability to work in fields where infection occurs in addition to research in the laboratory
- The willingness and ability to collaborate as part of an international team

(3) Number of Students Accepted

| Division, Graduate School | Student capacity |
|--|----------------------------|
| Division of Infectious Diseases, Graduate School of Infectious Diseases | A small number of students |

(4) Selection Procedure

【Regular selection】

This selection targets applicants who fulfill the qualification in “3. Applicant Qualifications”. Admission of each applicant is determined comprehensively on the basis of results of their academic examination (written examination and oral examination) and their transcripts.

Academic examination

(1) Written examination

- (a) Major subject: Subject in the field of education/research of your choice
- (b) Foreign language: English

* You are not allowed to bring any dictionaries when taking the foreign language examination.

(2) Oral examination

You will be asked questions mainly about your previous research and knowledge in your chosen field of education/research.

(5) Fields of Education/Research, Supervisors, and Written Examination Subjects

| Division, Graduate School | Field of Education/Research | Supervisor | 【Regular Selection】 Written Examination Subject | |
|--|---|-------------------|--|---------------------|
| | | | Major Subject | Foreign Language |
| Division of Infectious Diseases, Graduate School of Infectious Diseases | Microbiology | Yoshihiro SAKODA | Microbiology | English |
| | Infectious Diseases | Kazuhiko OHASHI | Infectious Diseases | |
| | Parasitology | Ken KATAKURA | Parasitology | |
| | Public Health | Hiroaki KARIWA | Public Health | |
| | Veterinary Hygiene | Motohiro HORIUCHI | Veterinary Hygiene | |
| | Virology | Ayato TAKADA | Virology | |
| | Infection Pathology | Hirofumi SAWA | Infection Pathology | |
| | Bacteriology | Yasuhiko SUZUKI | Bacteriology | |
| | Protozoology | Junya YAMAGISHI | Protozoology | |
| | Bioinformatics | Kimihito ITO | Bioinformatics | |
| | Infection Immunity | Hideaki HIGASHI | Infection Immunity | |
| | Risk Analysis | Norikazu ISODA | Risk Analysis | |
| | Biologics Development | Masashi SHINGAI | Biologics Development | |
| | Microbiology and Infectious Diseases | Kumiko MORIMATSU | Microbiology and Infectious Diseases | |

Regarding both graduate schools

Following are common guidelines for both Graduate School of Veterinary Medicine and Graduate School of Infectious Diseases.

Applicants should carefully read the contents below, chose one of the graduate schools and the examination category through which you will apply, and go through the procedures.

3. Applicant Qualifications

* If you have any questions about the applicant qualifications, contact the Academic Affairs Section, Administration Office for Veterinary Medicine as early as possible.

- (1) Those who have graduated or are expected to graduate from a six-year program in Veterinary Medicine, Medicine, Dentistry or Pharmaceutical Sciences in Japan by September 30, 2018.
- (2) Those who have completed or are expected to complete 18 years of formal education overseas (with a final program in Veterinary Medicine, Medicine, Dentistry or Pharmaceutical Sciences) by September 30, 2018.
- (3) Those who have completed or are expected to complete 18 years of formal education provided by an overseas educational institution by way of distance study program (with a final program in Veterinary Medicine, Medicine, Dentistry or Pharmaceutical Sciences) while residing in Japan by September 30, 2018.
- (4) Those who have completed or are expected to complete a study program at an educational institution in Japan by September 30, 2018, that is recognized as equivalent to a university in a foreign country (limited to individuals who have completed 18 years of education with a final program in Veterinary Medicine, Medicine, Dentistry or Pharmaceutical Sciences) and that is designated by the Minister of Education, Culture, Sports, Science, and Technology.
- (5) Those who have completed or are expected to complete a five-year or more program of Veterinary Medicine, Medicine, Dentistry or Pharmaceutical Sciences of a university in a foreign country or an overseas educational institution (including those who have completed or are expected to complete a study program provided by an overseas educational institution by way of distance study program while residing in Japan, and those who have completed or are expected to complete a study program at a designated educational institution as provided for in the preceding item, that is recognized as equivalent to a university in a foreign country) and have been awarded or are expected to be awarded a Bachelor's degree or a degree equivalent by September 30, 2018.
- (6) Those designated by the Minister of Education, Culture, Sports, Science and Technology.
- (7) Those who fall under any of the following categories, and are judged by the Graduate School to have earned credits required for the completion in the School of Veterinary Medicine, Hokkaido University or something equivalent with excellent academic performance.
 - (a) Those who have been enrolled for four or more years in a six-year program of Veterinary Medicine, Medicine, Dentistry or Pharmaceutical Sciences in Japan by September 30, 2018.
 - (b) Those who have been completed or are expected to complete 16 years of school education overseas (with a final program in Veterinary Medicine, Medicine Dentistry or Pharmaceutical Sciences), by

September 30, 2018.

- (c) Those who have completed or are expected to complete 16 years of formal education provided by an overseas educational institution by way of distance study program (with a final program in Veterinary Medicine, Medicine Dentistry or Pharmaceutical Sciences) while residing in Japan September 30, 2018.
 - (d) Those who have completed or are expected to complete a 16-year study program at an educational institution in Japan that is recognized as equivalent to a university in a foreign country (with a final program in Veterinary Medicine, Medicine, Dentistry or Pharmaceutical Sciences) and that is designated by the Minister of Education, Culture, Sports, Science, and Technology by September 30, 2018.
- (8) According to individual qualification examination by the Graduate School, those who are judged to have academic ability equal to or greater than a person completing a 6-year program in a Veterinary Medicine, Medicine, Dentistry or Pharmaceutical Sciences, and who will be 24 years of age or older by September 30, 2018.

4. Application Procedure

Applicants should submit all the application documents listed in (2) within the application period. Applicants should contact and obtain approval on the submission from supervisor in the field of education/research prior to submission.

(1) Application period

| | |
|---------------------|---|
| Selection Procedure | Application Period |
| Regular selection | From July 18 (Wed), 2018 to July 26 (Thu), 2018 (With the exception of weekends) |

Note that applicants falling under (5), (6), (7), or (8) in “5. Applicant Qualifications” are required to undergo the applicant qualification screening in advance. (See “(3) Applicant qualification screening.”)

(2) Application documents and examination fee

【Regular selection】

| Documents to be Submitted | Applicants Required to Submit Document | Remarks |
|---|--|--|
| Application for admission | All applicants | Form Provided (attach your photo to the form). |
| Curriculum vitae | All applicants | Form Provided |
| Transcript | Only if necessary | Submit the transcript issued by your university. If you are a (prospective) graduate of a graduate school, submit transcripts issued by your department and graduate school. If you are a current student or graduate of the School of Veterinary Medicine, Hokkaido University, you are not required to submit your transcripts. |
| Certification of (prospective) graduation | Only if necessary | Submit a certification of your (prospective) graduation issued by your university. If you are a (prospective) graduate of a graduate school, submit the certifications of (prospective) graduation issued by your department and graduate school. If you are a current student or graduate of the School of Veterinary Medicine, Hokkaido University, you are not required to submit your certification of (prospective) graduation. |
| Examination admission card | All applicants | Form Provided (attach your photo to the form). |
| Return envelope | All applicants except who reside outside Japan | This envelope is used for correspondence regarding your examination. Write your address on an envelope (size: long form No. 3) and put stamps worth 362 yen (including an express-delivery charge) on the envelope. |
| Examination fee | Only if necessary | Use the attached payment slip to pay 30,000 yen into the bank account within the application period. (If you are an applicant falling under (5), (6), (7), or (8) in “5. Applicant Qualifications,” pay an examination fee after you are considered “eligible” in the applicant qualification screening.) If you are a (prospective) graduate of the master’s program of a |

| | | |
|---|---|---|
| | | <p>Hokkaido University Graduate School and take an entrance examination for the doctoral program of the Graduate School of Veterinary Medicine or if you are an international student sponsored by the Japanese government (recipient of a scholarship granted by the Ministry of Education, Culture, Sports, Science and Technology), then you are not required to pay the examination fee. In this case, make sure to inform us when submitting your application.</p> <p>Once you pay the examination fee, the fee will not be refunded, except for the following cases:</p> <p>① You pay the examination fee, but do not submit your application, or your application is not accepted due to deficiencies in your application documents.</p> <p>② You pay the examination fee twice by mistake.</p> <p>③ You pay the examination fee despite the fact that you are not required to do so.</p> <p>* Payment via the online Application Website (payment with credit cards or others) is open to applicants residing outside Japan. To use this method, please contact Academic Affairs Section in advance. Please kindly bear all the remittance charges (500yen) with you.</p> |
| Examination fee receipt | Only if necessary | Attach the “Examination fee receipt” that was issued when you pay the examination fee, onto the designated space on the form designated by Administration Office for Veterinary Medicine. |
| Documents for the applicant qualification screening | Only if necessary (applicant qualification screening) | Submit a set of documents described in “(3) Applicant qualification screening” only if you are an applicant falling under (5), (6), (7), or (8) in “3. Applicant Qualifications.” |
| A copy of resident card | Only for foreigners living in Japan | Submit your resident card only if you are a foreigner living in Japan. |

(3) Applicant qualification screening

If you are an applicant falling under (5), (6), (7), or (8) in “3. Applicant Qualifications,” you are required to undergo the applicant qualification screening in advance. In this case, submit application documents (including the documents for the applicant qualification screening, excluding the examination fee) and documents for the applicant qualification screening within the screening application period. The notification letter of the results will be mailed to you. Those who are deemed eligible to apply should pay the examination fee during the designated period as shown on the notification letter.

If you are an applicant falling under (8) in “3. Applicant Qualifications,” then you may be required to undergo the oral screening for assessing your academic ability as required for (8) in “3. Applicant Qualifications.” This oral screening will take place within the application period.

| Selection Procedure | Application Period | Screening Period |
|---------------------|-----------------------------|---------------------|
| Regular selection | From June 1 to June 8, 2018 | Middle to late June |

- Documents to submit for the applicant qualification screening
- Application for applicant qualification screening (in the designated form)
 - Letter of reference (containing your research history) prepared by your supervisor or the head of your department (in any form)
 - List of research achievements (such as conference presentations, papers, patents, granted research subsidies, and research achievements at your workplaces) (in any form)
 - Other documents showing your research capability, if any
 - Envelope for the notification letter of the screening result (A standard-sized, self-addressed envelope with 82-yen stamp attached) (not required of the applicants residing outside Japan)

(4) Where to submit application documents and contact information

Academic Affairs Section, Administration Office for Veterinary Medicine,
 Hokkaido University
 Kita 18, Nishi 9, Kita-ku, Sapporo City 060-0818, JAPAN
 Tel: +81-11-706-5175
 Fax: +81-11-706-5190

5. Date, Time, and Place of Examination

【Regular selection】

(1) Academic examination

| Date | Time | Examination Subject |
|--|---|---|
| August 28 (Tue), 2018 | From 9:30 to 11:30 From 13:00 to 15:00 | Foreign language Major subject (one subject) |
| August 30 (Wed), 2017 August 29 (Wed), 2018 | From 9:00 | Oral examination |

(2) Place of examination

Faculty of Veterinary Medicine, Hokkaido University (Kita 18, Nishi 9, Kita-ku, Sapporo City)

6. Announcement of Successful Applicants

Results of the regular selection will be announced on the bulletin board of the Faculty of Veterinary Medicine on August 29, 2018 and be sent by mail to each applicant on August 30, 2018.

7. Admission Fee and Other Payments

Admission fee: 282,000 yen (scheduled)

Tuition for the first semester: 267,900 yen (535,800 yen per year) (scheduled)

If the tuition is revised while you are enrolled in the doctoral program, then the new tuition will be effective as of the time of that revision.

Domestic or overseas internship is required for completion of the Ph.D. courses at the Graduate School of Veterinary Medicine, and overseas internship is required at the Graduate School of Infectious Diseases. Please be reminded that applicants shall be expected to pay part of the internship costs, such as travel

expenses, accommodation fees, travel insurance and the like.

8. Long-Term Study System

The long-term study system is for students who indicate their intent to complete the course of study for periods exceeding the standard period for completion of the course (four years) due to work or other circumstances (including elder care, child-rearing etc.), and we may approve their plan of study by screening based on their application.

The time of application for long-term study is principally at the same time as submission of the application documents for the Doctoral program, so applicants should express their intent to the Academic Affairs Section and receive the application documents in advance.

Please note that applicants should consult with their supervisor before applying for the long term study system.

9. Financial Aid and Research Support for Ph.D. Students

Support provided for Ph.D. students is listed below. Eligibility, application requirements and number of successful applicants differ, so not all students are eligible for the support. Applicants should take the financial requirements necessary to study into consideration when applying for graduate school.

- (1) Teaching Assistants (TA), Research Assistants (RA), Teaching Fellows (TF)
TA: Academic assistants on undergraduate courses (experiment guidance support and the like)
RA: Faculty research assistants (support and the like regarding research projects)
TF: Academic supervision of undergraduate courses (experiment guidance on a higher level than that of a TA)
- (2) Entrance Fee Exemption (or Deferment), Tuition Fee Exemption (See below)
<https://www.global.hokudai.ac.jp/prospective-students/student-fees/>
- (3) Scholarships from Japan Student Services Organization, private organization and local governments (See below)
<https://www.global.hokudai.ac.jp/prospective-students/scholarships/>
- (4) JSPS Research Fellowship for Young Scientists (See below)
<https://www.jsps.go.jp/english/e-pd/pddc.htm>
- (5) Other
Financial support for Clinical Medicine-Emphasizing Program is not available for the international students in principal (Only available for students with the Veterinary license in Japan)

10. Privacy Policy

The Graduate School of Veterinary Medicine will not use private information such as your name, sex, date of birth, address, or other personal information contained in your application documents for any purpose other than selection, announcement of successful applicants, admission procedures, research and study on selection procedures, and other related purposes.

11. Miscellaneous

- (1) Applicants who are physically disabled and who may need special accommodations to take examinations and attend classes should notify the Academic Affairs Section of their condition by the last day of the application period.
- (2) If you wish to request by mail a Doctoral Program Application Guidelines, an application form, and other

forms, then write “Request for Application Form for Admission to Graduate School of XXXX, Admission in (month), (year)” in red on the front of an envelope (Be sure to clarify the name of the graduate school, and time of admission) and enclose a self-addressed return envelope (large enough to contain A4 sheets) within the envelope along with stamps worth 140 yen.

- (3) If submitting your application by mail, send the documents by acceptance-recorded mail (*tokutei kiroku yubin*) and write “Enc. Application for Admission to Graduate School (Regular selection, April Admission)” in red on the front of the envelope. Send the documents so that they will reach us within the application period.
- (4) If any information contained in your application documents is not true, then your admission may be cancelled.
- (5) We request successful candidates to submit the score of an authorized English proficiency test such as TOEFL, TOEIC, or IELTS, during the admission procedure period. Those who are unable to submit a score during the admission procedure period should submit the score within a year after enrollment.

Contact information

Academic Affairs Section,

Administration Office for Veterinary Medicine, Hokkaido University

E-mail: kyomu@vetmed.hokudai.ac.jp

May 2018

List of supervisors and study area/research contents

As of May 1, 2018 (expected)

Educational Organization: Graduate School of Veterinary Medicine

Faculty of Veterinary Medicine

(*To send email to a professor you want to contact with, use address with the corresponding laboratory ID + vetmed.hokudai.ac.jp (i.e. ID@vetmed.hokudai.ac.jp)

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| <p>Laboratory of Anatomy (ID: y-kon@)</p> <p>Professor: Yasuhiro KON Associate Professor: Osamu ICHII Assistant Professor: Yaser Hosny Ali ELEWA</p> <p>Study area/Research contents</p> <ol style="list-style-type: none">1) Morphology and molecular biology of autoimmune diseases2) Morpho-genetic analysis of urogenital disorders3) Functional analysis of local innate immune structures |
| <p>Laboratory of Physiology (ID: To Be Determined)</p> <p>Professor: To Be Determined</p> <p>Study area/Research contents</p> <ol style="list-style-type: none">1) To Be Determined2)3) |
| <p>Laboratory of Biochemistry (ID: k-kimura@)</p> <p>Professor: Kazuhiro KIMURA Lecturer: Yuko OKAMATSU Assistant Professor: Chitoku TODA</p> <p>Study area/Research contents</p> <ol style="list-style-type: none">1) Neural and hormonal control of metabolism2) Mesenchymal and epithelial interaction in the mammary gland3) Regulation of appetite and energy metabolism |
| <p>Laboratory of Pharmacology (ID: otsuguro@)</p> <p>Professor: Ken-ichi OTSUGURO Assistant Professor: Soichiro YAMAGUCHI</p> <p>Study area/Research contents</p> <ol style="list-style-type: none">1) Action of gliotransmitters2) Neurobiology and neuropharmacology3) Functional analysis of ion channels and receptors |
| <p>Laboratory of Radiation Biology (ID: inanami@)</p> <p>Professor: Osamu INANAMI</p> <p>Study area/Research contents</p> <ol style="list-style-type: none">1) Cellular and molecular responses to ionizing radiation2) Tumor microenvironment in cancer radiotherapy3) Development of novel radiosensitizing and radioprotective agents4) Application of ESR spectroscopy in biological systems |
| <p>Laboratory of Laboratory Animal Science and Medicine (ID: agui@)</p> <p>Professor: Takashi AGUI Associate Professor: Masami MORIMATSU</p> |

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| <p>Study area/Research contents</p> <ol style="list-style-type: none"> 1) Genetic analysis of the laboratory animal 2) Production of genetically modified animals |
| <p>Laboratory of Toxicology (ID: ishizum@)</p> <p>Professor: Mayumi ISHIZUKA Associate Professor: Yoshinori IKENAKA Assistant Professor: Shouta NAKAYAMA</p> <p>Study area/Research contents</p> <ol style="list-style-type: none"> 1) Effect of environmental chemicals on wild and domestic animals 2) Establishment of biomarkers to assess the health of ecosystem 3) Regulation of expression and roles of cytochrome P450 and phase II enzymes 4) Species differences in sensitivity to toxicity of xenobiotics |
| <p>Laboratory of Wildlife Biology and Medicine (ID: tsubota@)</p> <p>Professor: Toshio TSUBOTA Associate Professor: Michito SHIMOZURU Assistant Professor: Mariko SASHIKA</p> <p>Study area/Research contents</p> <ol style="list-style-type: none"> 1) Ecology and physiology of wildlife such as bears, deer and seals in Hokkaido 2) Ecology and infectious disease in wildlife 3) Wildlife management and conservation medicine |
| <p>Academic staff affiliated with the Department of Environmental Veterinary Sciences* (Professor: Seiji KATAGIRI)</p> <p><small>*Department of Environmental Veterinary Sciences consist of Laboratory of Toxicology and Laboratory of Wildlife Biology and Medicine</small></p> |
| <p>Laboratory of Veterinary Internal Medicine (ID: mtaki@)</p> <p>Professor: Mitsuyoshi TAKIGUCHI Lecturer: Hiroshi OHTA Assistant Professor: Noboru SASAKI</p> <p>Study area/Research contents</p> <ol style="list-style-type: none"> 1) Diagnostic imaging in companion animal practice 2) Molecular pathogenesis of inflammatory and immune-mediated diseases 3) Application of therapeutic ultrasound in veterinary medicine |
| <p>Laboratory of Veterinary Surgery (ID: okumuram@)</p> <p>Professor: Masahiro OKUMURA Assistant Professor: Sangho KIM</p> <p>Study area/Research contents</p> <ol style="list-style-type: none"> 1) Diagnostic and therapeutic interventions of joint diseases in dogs and horses 2) Plate fixation system using newly formed metal materials for fracture repair in dogs 3) Autologous and allogenic marrow transplant for canine lymphoproliferative disorders <p>Verification of volumetric modulated arc radiotherapy in dogs with spontaneously occurring solid tumors</p> |
| <p>Laboratory of Comparative Pathology (ID: tkimura@)</p> <p>Professor: Takashi KIMURA Associate Professor: Atsushi KOBAYASHI Assistant Professor: Keisuke AOSHIMA</p> <p>Study area/Research contents</p> <ol style="list-style-type: none"> 1) Pathogenesis of animal infectious diseases 2) Host cell factors involved in the development of encephalitis/encephalopathy 3) Molecular pathology of animal cancer epigenetics and stem cells |

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| <p>Laboratory of Theriogenology (ID: katagiri@)</p> <p>Professor: Seiji KATAGIRI Associate Professor: Masashi NAGANO Assistant Professor: Yojiro YANAGAWA</p> <p>Study area/Research contents</p> <ol style="list-style-type: none"> 1) In vitro production and preservation of embryos and oocytes in domestic animals 2) Reproductive physiology in high-yielding dairy cow 3) Improvement of semen quality for artificial reproductive technology 4) Artificial breeding and reproductive physiology of wildlife and zoo animals |
| <p>Laboratory of Molecular Medicine (ID: inazo@)</p> <p>Professor: Mutsumi INABA Associate Professor: Kensuke TAKADA Assistant Professor: Jumpei YAMAZAKI</p> <p>Study area/Research contents</p> <ol style="list-style-type: none"> 1) Molecular bases for inherited diseases of membrane proteins 2) Molecular mechanisms for the differentiation and maturation of erythroid cells 3) Molecular mechanisms for the ER-quality control/ER-associated degradation and the intracellular trafficking of transmembrane proteins |
| <p>Laboratory of Advanced Veterinary Medicine (Teaching Hospital) (ID: mtaki@)</p> <p>(Professor: Mitsuyoshi TAKIGUCHI) Associate Professor: Kenji HOSOYA Assistant Professor: Keitaro MORISHITA Specially Appointed Lecturer: Ryosuke ECHIGO Specially Appointed Assistant Professor: Tomohito ISHIZUKA Specially Appointed Assistant Professor: Tatsuyuki OSUGA Specially Appointed Assistant Professor: Genya SHIMBO Specially Appointed Assistant Professor: Harumichi ITO</p> <p>Study area/Research contents</p> <ol style="list-style-type: none"> 1) Genetical diagnosis for animal tumors and therapeutic methods 2) Clinical application of contrast-enhanced ultrasonography in small animal practice |

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| <p>Educational Organization: Graduate School of Infectious Diseases</p> | |
| <p>Faculty of Veterinary Medicine (*To send email to a professor you want to contact with, use address with the corresponding laboratory ID + vetmed.hokudai.ac.jp (i.e. ID@ vetmed.hokudai.ac.jp))</p> | |
| <p>Laboratory of Microbiology (ID: sakoda@)</p> <p>Professor: Yoshihiro SAKODA Associate Professor: Masatoshi OKAMATSU Lecturer: Keita MATSUNO</p> <p>Study area/Research contents</p> <ol style="list-style-type: none"> 1) Molecular basis of ecology and pathogenicity of influenza virus 2) Molecular basis of ecology and pathogenicity of pestivirus 3) Development of new diagnosis method and effective vaccine for viral infections | |
| <p>Laboratory of Infectious Diseases (ID: okazu@)</p> <p>Professor: Kazuhiko OHASHI Associate Professor: Satoru KONNAI Assistant Professor: Shiro MURATA</p> <p>Study area/Research contents</p> <ol style="list-style-type: none"> 1) Analysis of the molecular pathogenesis of Marek's disease virus and bovine leukemia virus 2) Development of anti-tick vaccine to prevent tick-transmitted diseases 3) Analysis of immune responses against infections in domestic animals | |

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| | <p>Laboratory of Parasitology (ID: kenkata@)</p> <p>Professor: Ken KATAKURA Associate Professor: Ryo NAKAO</p> <p>Study area/Research contents</p> <ol style="list-style-type: none"> 1) Molecular epidemiology of parasitic diseases 2) Host-parasite and vector-parasite interplays in parasitic diseases 3) Genome analysis of parasites and vectors 4) Studies on symbiotic microorganisms in vector arthropods |
| | <p>Laboratory of Public Health (ID: kariwa@)</p> <p>Professor: Hiroaki KARIWA Associate Professor: Kentaro YOSHII Assistant Professor: Shintaro KOBAYASHI</p> <p>Study area/Research contents</p> <ol style="list-style-type: none"> 1) Diagnosis and pathogenesis of tick-borne encephalitis 2) Diagnosis and epidemiology of West Nile fever 3) Ecology and diagnosis of hantavirus infection |
| | <p>Laboratory of Veterinary Hygiene (ID: horiuchi@)</p> <p>Professor: Motohiro HORIUCHI Lecturer: Rie HASEBE Assistant Professor: Takeshi YAMASAKI</p> <p>Study area/Research contents</p> <ol style="list-style-type: none"> 1) Comprehensive analysis of pathobiology and neuropathogenesis of prion diseases 2) Analysis of neuron-glia interaction in intractable neurodegenerative diseases 3) Etiology of food-borne diseases such as listeriosis and campylobacteriosis 4) Molecular epidemiology of proliferative enteropathy in animals |
| <p>Research Center for Zoonosis Control (*To send email to a professor you want to contact with, use address with the corresponding department ID + czc.hokudai.ac.jp (i.e. ID@ czc.hokudai.ac.jp))</p> | |
| | <p>Division of Global Epidemiology (ID: atakada@)</p> <p>Professor: Ayato TAKADA Associate Professor: Manabu IGARASHI</p> <p>Study area/Research contents</p> <ol style="list-style-type: none"> 1) Ecology, evolution, and natural hosts of viruses 2) Pathogen-host interactions 3) Structure and function of pathogen and host proteins 4) Development of diagnostics and therapeutics for viral infections |
| | <p>Division of Molecular Pathobiology (ID: h-sawa@)</p> <p>Professor: Hirofumi SAWA Lecturer: Yasuko ORBA</p> <p>Study area/Research contents</p> <ol style="list-style-type: none"> 1) Cellular and molecular biology of interaction between virus and host cells 2) Identification of cellular factors preventing viral infection 3) Establishment of therapeutic strategy for viral infectious diseases 4) Surveillance of viral infectious diseases |
| | <p>Division of Bioresources (ID: suzuki@)</p> <p>Professor: Yasuhiko SUZUKI Associate Professor: Chie NAKAJIMA</p> <p>Study area/Research contents</p> <ol style="list-style-type: none"> 1) Surveillance of zoonoses caused by bacterial pathogens 2) Elucidation of drug resistance acquisition mechanism in bacteria 3) Development of diagnostics for bacterial zoonoses 4) Development of biopharmaceuticals |

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| | <p>Division of Collaboration and Education (ID: junya @)</p> <p>Associate Professor: Junya YAMAGISHI Lecturer: Ichiro NAKAMURA</p> <p>Study area/Research contents</p> <ol style="list-style-type: none"> 1) Functional genomics of protozoan parasites (Trypanosoma, Theileria, Babesia, Plasmodium), Rickettsia and vector arthropods (tsetse fly, tick) 2) Investigation of host-pathogen interactions by transcriptomics 3) Development of methods in genome epidemiology |
| | <p>Division of Bioinformatics (ID: itok@)</p> <p>Professor: Kimihito ITO Assistant Professor: Ryosuke OMORI</p> <p>Study area/Research contents</p> <ol style="list-style-type: none"> 1) Computer prediction on the evolution of zoonotic pathogens 2) Mathematical modeling and statistical analysis of infectious diseases 3) Development of bioinformatics algorithms and tools |
| | <p>Division of Infection and Immunity (ID: hidea-hi@)</p> <p>Professor: Hideaki HIGASHI Lecturer: Yoshikazu FURUTA</p> <p>Study area/Research contents</p> <ol style="list-style-type: none"> 1) Investigation of host response against zoonotic pathogens 2) Structure-based study of bacterial pathogens and cellular molecules 3) Development of diagnostic and therapeutic methods for bacterial infectious diseases |
| | <p>Unit of Risk Analysis and Management (ID: isoda@)</p> <p>Associate Professor: Norikazu ISODA</p> <p>Study area/Research contents</p> <ol style="list-style-type: none"> 1) Risk assessment of zoonotic events and establishment of useful tools for risk management 2) Planning and implementation of proper risk management scheme 3) Suggestion of sampling strategy for monitoring zoonotic events |
| | <p>Laboratory for Biologics Development (ID: shingaim@)</p> <p>Associate Professor: Masashi SHINGAI Assistant Professor: Takuji DAITO</p> <p>Study area/Research contents</p> <ol style="list-style-type: none"> 1) Development of biologics for viral infections 2) Analysis and control of immune responses to viral infections |
| <p>Graduate School of Medicine (*To send email to a professor you want to contact with, use address with the corresponding department ID + med.hokudai.ac.jp (i.e. ID@ med.hokudai.ac.jp)</p> | |
| | <p>Division of Microbiology and Infectious Diseases (ID: yosimatsu@)</p> <p>Associate Professor: Kumiko MORIMATSU</p> <p>Study area/Research contents</p> <ol style="list-style-type: none"> 1) Investigation of rodent borne zoonoses 2) Development of serological and molecular biological diagnostic methods 3) Analysis of pathogenesis of hantavirus infections in human and rodents |